



PTO/SB/21 (02-04)

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TRANSMITTAL FORM

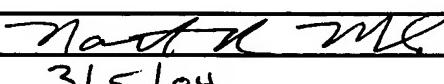
(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission	1	Application Number 10/723,533
		Filing Date 11/26/2003
		First Named Inventor Anandaroop Bhattacharya
		Art Unit 3753
		Examiner Name Not Yet Assigned
		Attorney Docket Number 111079-135105

ENCLOSURES (Check all that apply)

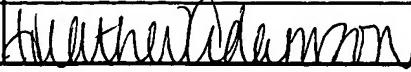
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): <input type="checkbox"/> Copies of 5 IDS References; Return Receipt Postcard
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	SCHWABE, WILLIAMSON & WYATT, P.C.
Signature	
Date	3/15/04

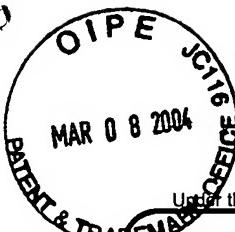
CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Heather L. Adamson	
Signature		Date
		03/05/2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 0.00)

Complete if Known

Application Number	10/723,533
Filing Date	11/26/2003
First Named Inventor	Anandaroop Bhattacharya
Examiner Name	Not Yet Assigned
Art Unit	3753
Attorney Docket No.	111079-135105

METHOD OF PAYMENT (check all that apply)

 Check Credit card Money Order Other None
 Deposit Account:Deposit Account Number
Deposit Account Name

500393

Schwabe, Williamson et al

The Director is authorized to: (check all that apply)

- Charge fee(s) indicated below Credit any overpayments
 Charge any additional fee(s) or any underpayment of fee(s)
 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)		(\$ 0.00)	

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Independent Claims	Multiple Dependent	Extra Claims	Fee from below	Fee Paid
			-20** =	X	=
			-3** =	X	=

Large Entity	Small Entity	Fee Description
Fee Code (\$)	Fee Code (\$)	
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent
SUBTOTAL (2)		(\$ 0.00)

**or number previously paid, if greater; For Reissues, see above

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 0.00)

SUBMITTED BY

(Complete if applicable)

Name (Print/Type)	Nathan R. Maki	Registration No. (Attorney/Agent)	51,110	Telephone	503-222-9981
Signature		Date	3/5/04		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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MAR 08 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application for:

Anandaroop Bhattacharya et al.

Application No.: 10/723,533

Filed: 11/26/2003

For: THERMAL MANAGEMENT
DEVICE FOR AN INTEGRATED
CIRCUIT

Examiner: Not Yet Assigned

Art Group: 3753

Confirmation No. 8659

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450 on this date: 03/05/2004

Typed or Printed: Heather L. Adamson

Signature: Heather L. Adamson Date: 03/05/2004

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. § 1.97(g), the submission of this Information Disclosure Statement (IDS) is not to be construed as a representation that a search has been made, and, pursuant to 37 C.F.R. § 1.97(h), the submission of this IDS is not to be construed as an admission that the information cited in this IDS is material to patentability.

This IDS is being submitted under one or more of the following sections of 37

C.F.R. § 1.97 (as indicated by an "X" to the left of the appropriate paragraph(s)):

X 37 C.F.R. § 1.97(b). Filed:

- (1) Within three months of a National Application other than a CPA;
- (2) Within three months of entry into National Stage;
- (3) Before mailing of a first Office Action on the merits; or
- (4) Before mailing of a first Office Action after filing an RCE.

 37 C.F.R. § 1.97(c). Filed before the mailing of a Final Office Action, Notice of Allowance, or an action that otherwise closes prosecution.

And, ONE of the following:

- (1) One statement from 37 C.F.R. § 1.97(e);

 (e)(1) The person signing below certifies that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or

 (e)(2) The person signing below certifies that no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing below after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 1.56(c) more than three months prior to filing this IDS.

OR

- (2) The fee set forth in 37 C.F.R. § 1.17(p).

 A check in the amount of \$180.00 is enclosed.

 37 C.F.R. § 1.97(d). Filed on or before payment of the issue fee.

And, BOTH of the following:

- (1) one statement from 37 C.F.R. § 1.97(e);

 (e)(1) The person signing below certifies that each item of information contained in this IDS was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS; or

 (e)(2) The person signing below certifies that no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing below after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 1.56(c) more than three months prior to filing this IDS.

AND

- (2) The fee set forth in 37 C.F.R. § 1.17(p).

 A check in the amount of \$180.00 is enclosed.



Accompanying this IDS is a list of references and a copy of each reference listed

therein, EXCEPT copies of references waived under:

(A) one or more of the following sections of 37 C.F.R. § 1.98 (as indicated by an "X" to the left of the appropriate paragraph(s)):

37 C.F.R. § 1.98(c) as being cumulative (marked with an "*" on the Form PTO-1449).

37 C.F.R. § 1.98(d) as being previously submitted in parent application /, to which the present application claims priority under 35 U.S.C. § 120.

(B) 1273 Off. Gaz. Pat. Office 55 as being submitted with respect to an application filed after June 30, 2003.

The Commissioner is hereby authorized to charge shortages or credit overpayments to Deposit Account No. 500393. A Fee Transmittal is enclosed in duplicate for fee processing purposes.

Respectfully submitted,
SCHWABE, WILLIAMSON & WYATT, P.C.

Dated: 3/5/04


by, Nathan R. Maki, Reg. No. 51,110
Attorney for Applicants

Pacwest Center, Suites 1600-1900
1211 SW Fifth Avenue
Portland, Oregon 97204
Telephone: 503-222-9981



PTO/SB/08B (08-03)

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Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
Sheet	1	of	1	Application Number	10/723,533
				Filing Date	11/26/2003
				First Named Inventor	Anandaroop Bhattacharya
				Art Unit	3753
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	111079-135105

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
	1	CALMIDI et al., "Forced Convection in High Porosity Metal Foams," Journal of Heat Transfer, Transactions of the ASME, August 2000, Vol. 122, pp. 557-565			
	2	HUNT et al., "Effects of thermal dispersion on forced convection of fibrous media," Int. J. Heat Mass Transfer, 1988, Vol. 31, No. 2, pp. 301-309			
	3	PHANIKUMAR et al., "Non-Darcy natural convection in high porosity metal foams," International Journal of Heat and Mass Transfer, 2002, 45, pp. 3781-3793			
	4	STUBOS et al., "Network Modelling of Two-Phase Flow in Porous Structures: An Alternative for the Sutdy of Chip Cooling Enhancement," Proceedings of the NATO			
		Advanced Study Institute on Cooling of Electronic Systems, June21-July 2, 1993, pp. 811-824			
	5	THYRUM, "Alleviating Thermal Spreading Resistance in Telecommunications Systems," Therma-Base(TM) Heat Sinks, April 11, 2003, pp. 1-7			

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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